



# Power Amplifier

## Model: PA-0G7-6G-100

0.7-6GHz 100W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

### Features:

- Frequency range: 0.7-6GHz
- High output power at saturation, 100W Min.
- High gain, 53 dB Min.
- 50 Ohm Matched Input / Output.

### Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

### Product Overview:

The PA-0G7-6G-100 is a power amplifier with a minimum power gain of 53 dB and a minimum Psat of 100W across the frequency range of 0.7 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/22 A. The input port configuration offers coax adapter structure with SMA female and output port configuration offers coax adapter structure with N Female. .



## Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	0.7		6	GHz
Power Gain	53	56		dB
Gain Flatness		±4	±6	dB
Output Psat	50	51		dBm
Spurious			-60	dBc
Harmonic			-10	dBc
Input VSWR			2.0	:1
DC Voltage		+28		V DC
DC Supply Current		22		A
Impedance		50		Ohms

## Mechanical Specifications:

Parameter	Value	Notes
Operating Temperature*	-20°C to +60°C	
Non-operating Temperature*	-30°C to +70°C	
Relative humidity	95	%
RF Input/Output Connector	SMA Female/N Female	
DC Bias	D-SUB-15	
Altitude	10,000	feet
Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth	
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions	
Dimensions W x H x D	270*160*27	mm

\*Note: For a wider temperature range, please consult the manufacturer.

## Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	+3 dBm
ESD sensitivity (HBm)	Class 0, passed 150V





## DC Supply Connector(DSUB-9 Female):

Pin	Name	Function
1	VCC	+26.0-30.0VDC
2	VCC	+26.0-30.0VDC
3	VCC	+26.0-30.0VDC
4	GND	Ground
5	GND	Ground
6	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High)
7	RESET	Resets PA when logic LOW is applied and released (Internally Pulled-High)
8	Over Temperature	When the temperature of the case exceeds 70 °C, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 60 °C, the power amplifier will return to normal operation, and this pin will be pulled low.
9	VCC	+26.0-30.0VDC
10	VCC	+26.0-30.0VDC
11	GND	Ground
12	GND	Ground
13	GND	Ground
14	Over Current	Current FAULT:(TTL High= Fault, TTL Low =Normal)
15	Over Voltage	Voltage FAULT:(TTL High= Fault, TTL Low =Normal)

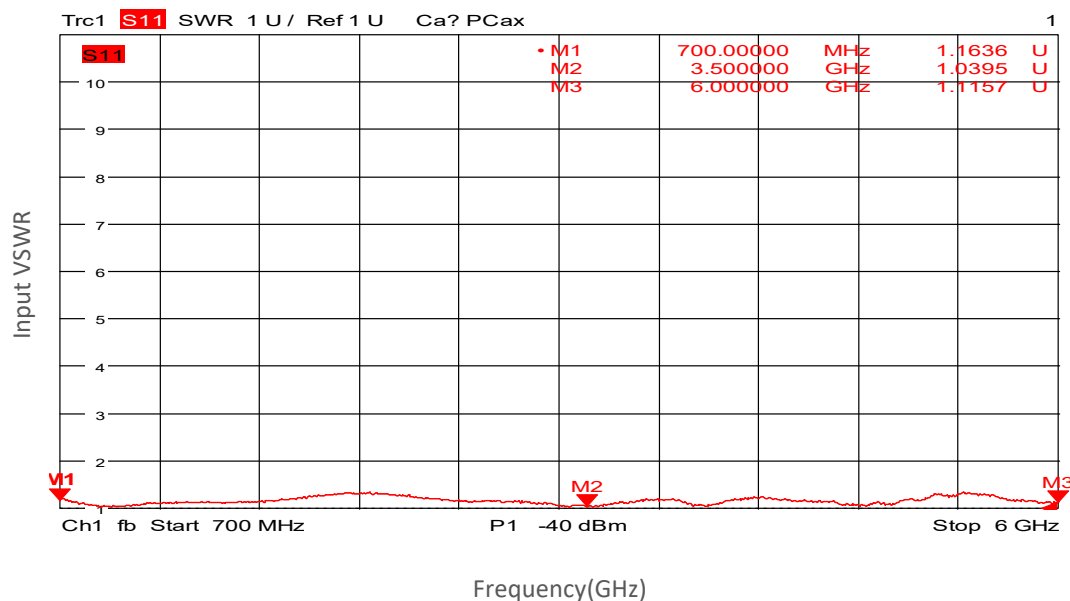
## Ordering Information:

Base Number	Description	Optional
PA-0G7-6G-100	Power Amplifier, 0.7-6GHz, Gain:53dB,Psat:100W,+28V DC	Without Heatsink
PA-0G7-6G-100-HS	Power Amplifier, 0.7-6GHz, Gain:53dB,Psat:100W,+28V DC	With Heatsink

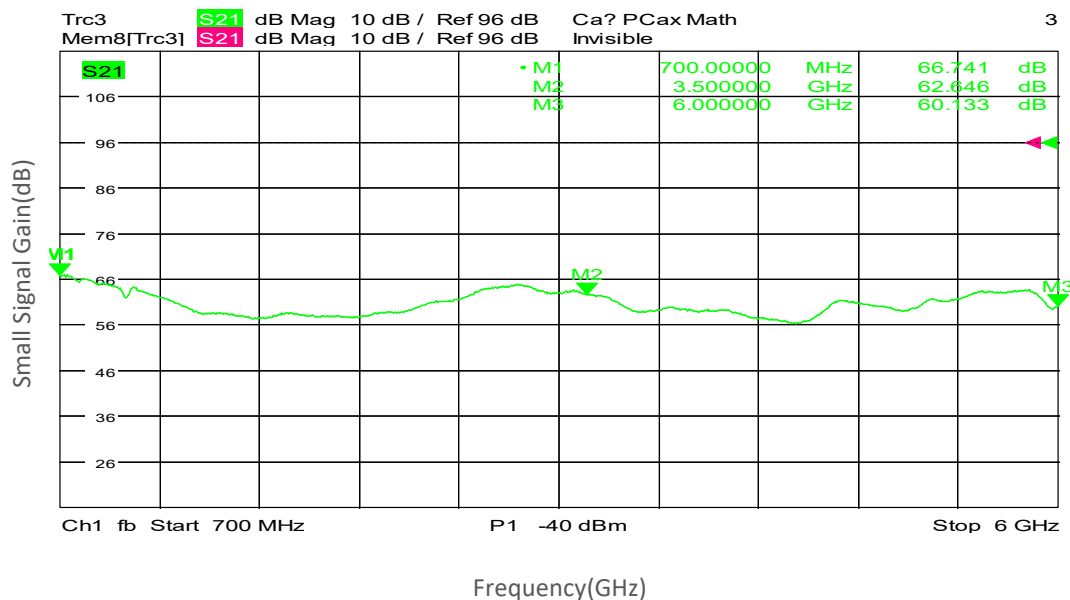


## Typical Performance Data:

### Input VSWR vs Frequency



### Small Signal Gain vs Frequency

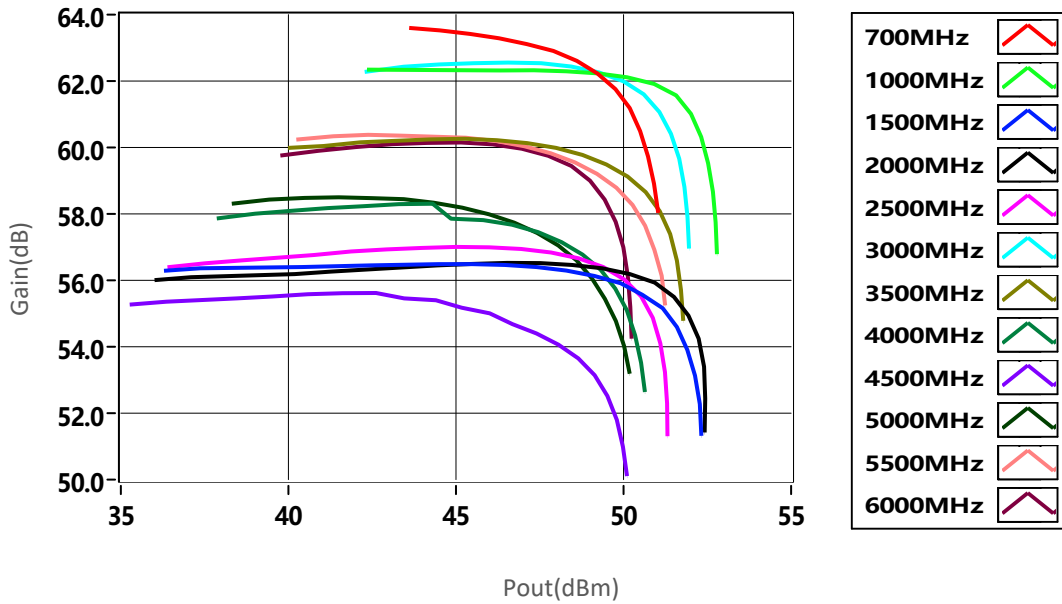


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

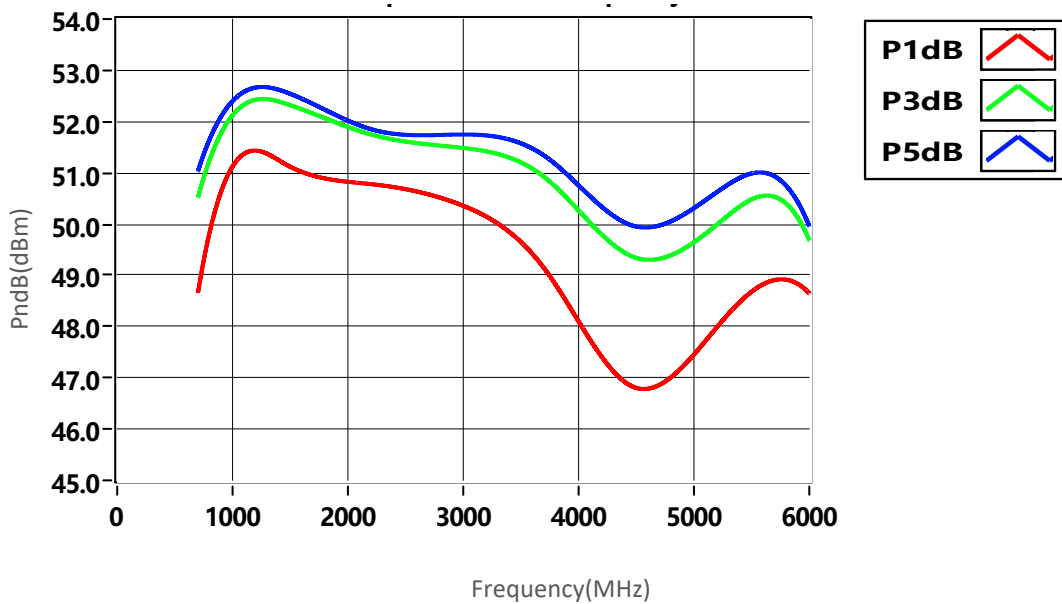


## Typical Performance Data:

### Gain vs Output Power



### PndB vs Frequency

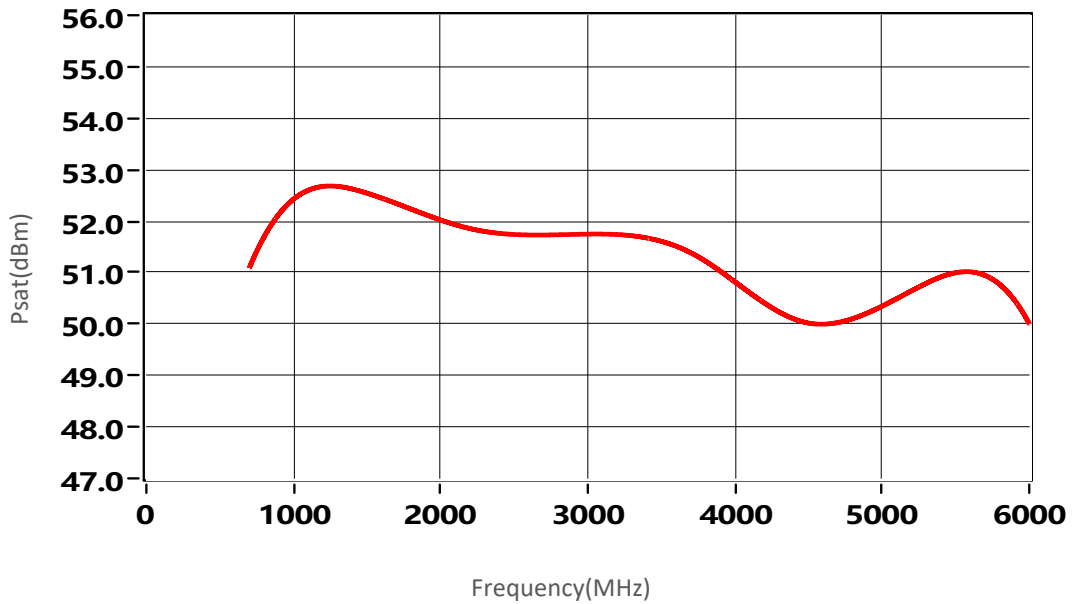


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

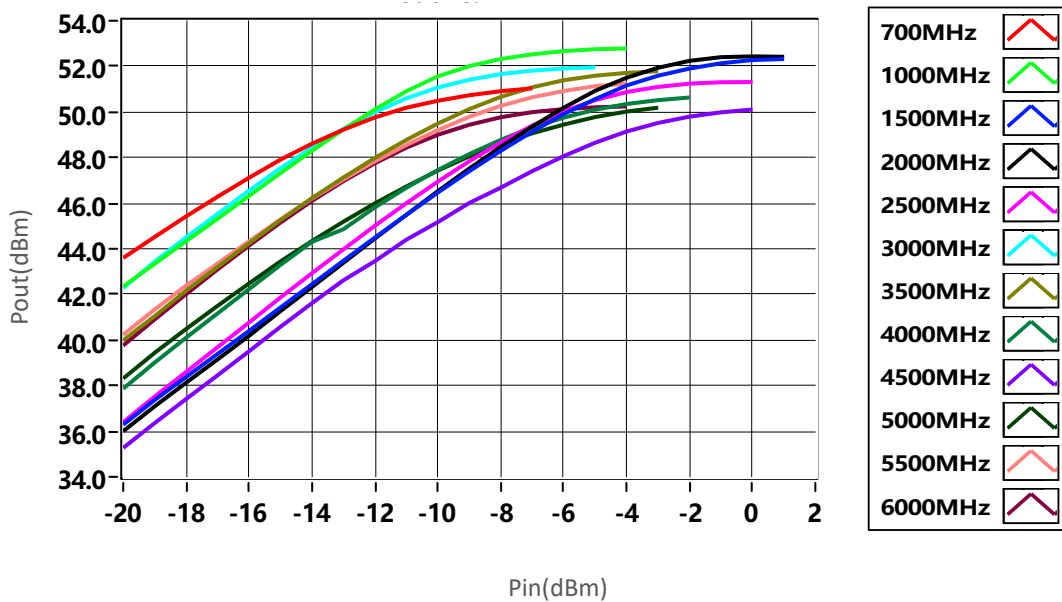


## Typical Performance Data:

### Psat vs Frequency



### Pout vs Pin

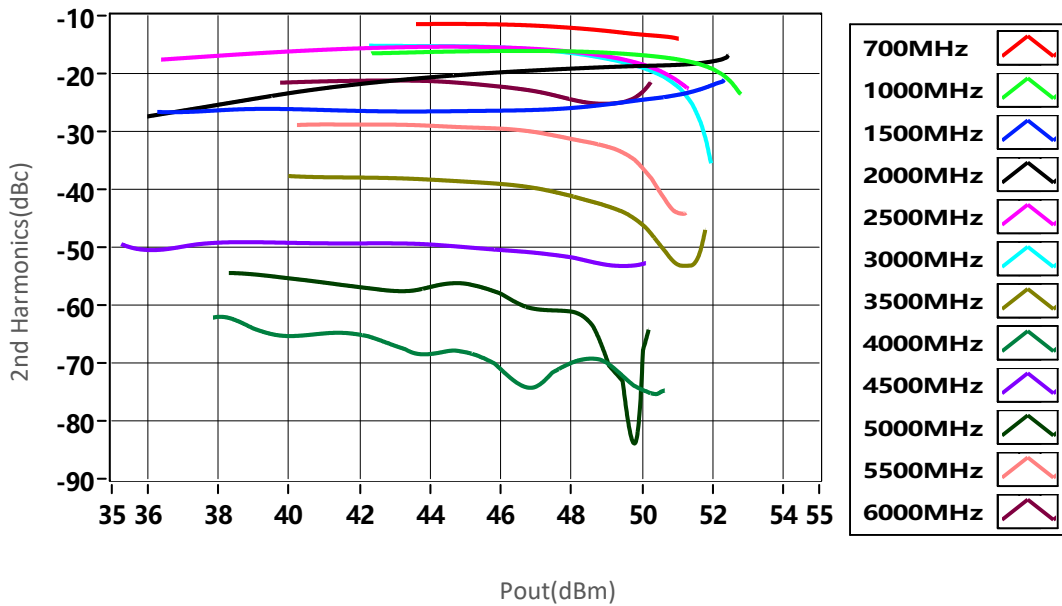


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

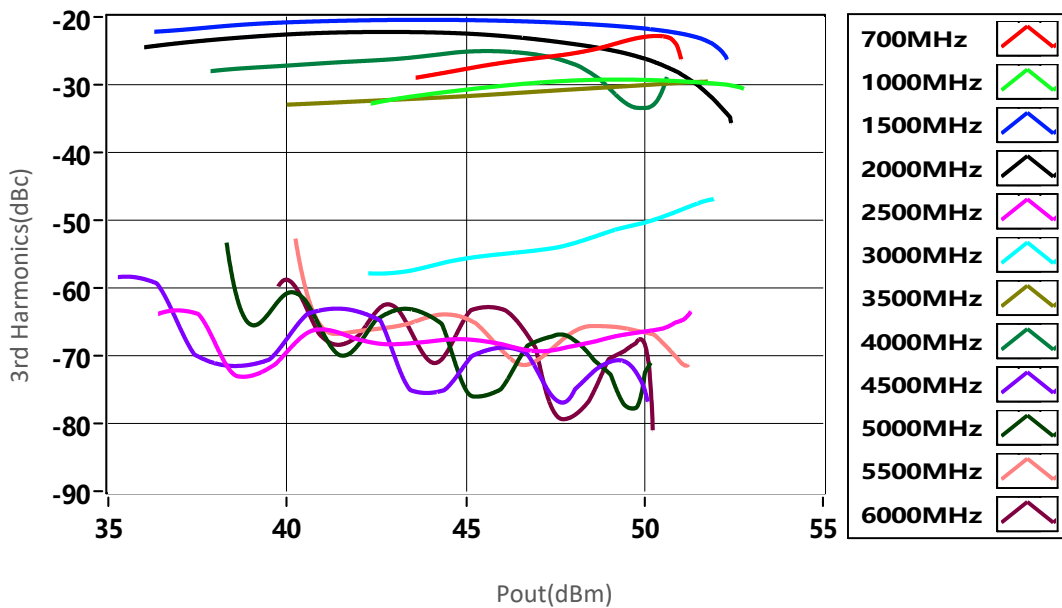


## Typical Performance Data:

### 2nd Harmonics vs Output Power



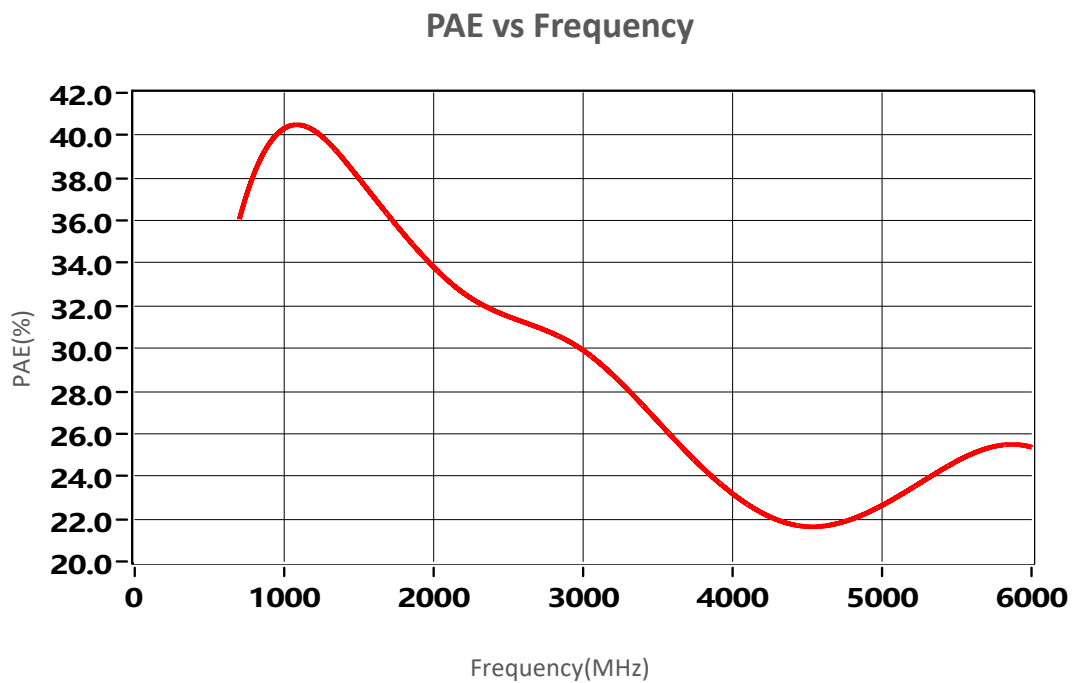
### 3rd Harmonics vs Output Power



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.



## Typical Performance Data:



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.